



IDEM's Water Quality Assessment Program

Water Quality Monitoring Strategy

Program Objective

The purpose of the Office of Water Quality's (OWQ) Water Quality Monitoring Strategy:2006-2010 (hereafter *Strategy*) is to assess the quality of all Indiana's waters for designated water uses. The *Strategy* is designed to provide data in support of the following Clean Water Act (CWA) and Indiana-specific programs.

- The biennial Integrated Water Quality Monitoring & Assessment Report (CWA Sec. 303(d) list of impaired waters, Sec. 305(b) water quality report) (hereafter Integrated Report)
- National Pollutant Discharge Elimination System (NPDES) Permitting Program
- The annual Fish Consumption Advisory
- Total Maximum Daily Load (TMDL) Modeling
- CWA Sec. 319 Projects
- Ground Water Monitoring
- Source Water Protection
- Wetlands Monitoring.

In addition, the *Strategy* provides water quality information to identify the activities responsible for impairment, to analyze water quality trends, and to use environmental indicators developed for Indiana.

The state is geographically divided into major river basins for environmental sampling, analysis, and assessment with the goal of sampling the entire state over a five-year period. The current *Strategy* contains the following sampling schedule.

- West Fork White River and Patoka River Basins in 2006
- East Fork White River and Whitewater River Basins in 2007
- Upper Wabash River Basin in 2008
- Lower Wabash River and Kankakee River Basins in 2009
- Great Lakes and Ohio River Basins in 2010

Data collected from field sampling are evaluated for physical, chemical, and biological parameters. These data are used to assess the condition of the water body and to identify potential stressors when assessments indicate that the waters are not meeting their designated uses.

Some *Strategy* programs provide for long-term monitoring of specific sites statewide that generates status and trends information (e.g. Fixed Station Monitoring Program). Other programs utilize randomly selected sites following a rotating basin schedule (e.g. Probabilistic Sampling Programs), and others utilize targeted site selected approach to focus on known problems or gathering specific data.

The *Strategy* is designed to describe the overall environmental quality of the state's waters each year through the Fixed Station and Lakes Monitoring Programs, and the environmental quality of surface waters in the basin of rotation through the Probabilistic Sampling Program. In addition, these programs seek to identify impaired water bodies that do not meet water quality standards. Elements of the sampling program include: fixed station monitoring, probabilistic sampling from statistically selected sites, fish

community, fish tissue, and sediment contaminant sampling programs, pesticide monitoring, bacteriological (*E. coli*) sampling, macroinvertebrate sampling, site specific sampling in support of NPDES permitting program, and special projects such as trace metals, TMDL sampling, and Sec. 319 Projects. College students from the Governor's Public Service Internship Program are employed each summer to assist the Assessment Branch in field sampling operations. Volunteer monitoring will be employed to supplement existing IDEM data collection whenever applicable.

The water quality data will be collected, analyzed, and assessed with information published in multiple formats to be used by a variety of customers. The OWQ's internal program support activities include: Indiana's Integrated Report, TMDL determinations, and NPDES permits. Other programs utilizing these monitoring data and information include: the annual Fish Consumption Advisory, the IDEM-USEPA Environmental Performance Partnership Agreement, and the Northwest Indiana Remedial Action Plan, various state, federal, and local agencies, and the public. Data and quality assurance and quality control (QA/QC) information is stored in the AIMS database. Access to collected data and information is provided to the public upon request and by the Internet.

Program Participants

This program is operated through the efforts of the OWQ Assessment Branch in collaboration with staff from the Watershed Planning Section, TMDL Section, Permitting and Compliance Branches. The Fish Consumption Advisory is produced in conjunction with the Indiana Department of Health and the Indiana Department of Natural Resources.

Program Description

Media:	Water: rivers, streams, lakes, ground water, wetlands
Study Area:	Statewide
Site Selection Type:	See fact sheets listed in Program Products section
Sampling Sites:	See fact sheets listed in Program Products section
Sampling Frequency:	See fact sheets listed in Program Products section
Data Collected:	See fact sheets listed in Program Products section

Program Products

- < Fact Sheet: *Assessment Branch*, B-014-OWQ-A-98-R4 (rev. 3/2006)
- < Report: *Indiana Water Quality Monitoring Strategy: 2006-2010*, B-001-OWQ-A-00-006-R3
- < Fact Sheet: *Probabilistic Sampling Program*, B-001-OWQ-A-98-R4 (rev. 3/2006)

Surveys Section

- < Fact Sheet: *Surveys Section*, B-015-OWQ-A-SU-98-R5 (rev. 3/2006)
- < Fact Sheet: *Fixed Station Monitoring Program*, B-012-OWQ-A-SU-98-R4 (rev. 3/2006)
- < Fact Sheet: *E. coli Monitoring Program*, B-019-OWQ-A-SU-99-R5 (rev. 2/2006)
- < Fact Sheet: *Source Identification Program – Water Quality Impairments*, B-020-OWQ-A-SU-03-R3
- < Fact Sheet: *Special Studies Program*, B-031-OWQ-A-06-R0
- < Fact Sheet: *Trace Metals Sampling Program*, B-022-OWQ-A-SU-01-R1 (rev. 2/2006)
- < Fact Sheet: *Nutrient Sampling Program*, B-026-OWQ-A-SU-06-R0
- < Fact Sheet: *TMDL Sampling Program*, B-030-OWQ-A-CH-06-R0

Program Products (continued)

Biological Studies Section

- < Fact Sheet: *Biological Studies Section*, B-006-OWQ-A-BS-98-R4 (rev. 2/2006)
- < Fact Sheet: *Fish Community Assessment Program*, B-004-A-OWQ-A-BS-98-R5 (rev. 3/2006)
- < Fact Sheet: *Fish Tissue Contaminant Monitoring Program*, B-005-OWQ-A-BS-98-R4 (rev. 2/2006)
- < Fact Sheet: *Macroinvertebrate Community Assessment Program*, B-007-OWQ-A-BS-98-R4 (rev. 2/2006)
- < Fact Sheet: *Sediment Contaminant Monitoring Program*, B-008-OWQ-A-BS-98-R4 (rev. 2/2006)
- < Fact Sheet: *Lake Water Quality Assessment Program*, B-009-OWQ-A-BS-98-R6 (rev. 2/2006)
- < Fact Sheet: *Stressor Identification Program – Biological Assemblage Impairments*, B-029-OWQ-A-BS-06-R0
- < Fact Sheet: *Fish Consumption Risk Assessment Program*, B-024-OWQ-A-BS-01-R2 (rev. 2/2006)

Environmental Toxicology and Chemistry Section

- < Fact Sheet: *Environmental Toxicology and Chemistry Section*, B-003-OWQ-A-CH-98-R4 (rev. 2/2006)
- < Fact Sheet: *Quality Assurance Project Plan*, B-023-OWQ-A-CH-01-R1

Technical Notes

Please read the fact sheets listed in the Program Products section.

Contact Information

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<p>IDEM Information: (317) 232-8603 or 800-451-6027 800-743-3333(TDD) toll-free for Indiana residents www.IN.gov/idem/water/</p> <p>Report Environmental Emergencies: (888) 233-7745</p> <p>Confidential Technical Assistance: (800) 988-7901</p> <p>Pollution Complaint: www.IN.gov/idem/pollutioncomplaints/</p> <p>Questions and Comments: www.IN.gov/idem/contact/questions.html</p>	<p><i><u>For More Information on IDEM's Office of Water Quality...</u></i></p> <p>Assessment Branch (Surface water quality monitoring: rivers and streams, lakes, water quality standards) Shadeland Office, Indianapolis (317) 308-3173</p> <p>Compliance Branch (Compliance and inspections, data and information services, wastewater certification and continuing education) Indiana Government Center North, Indianapolis (317) 233-2545</p> <p>Drinking Water Branch (Public water supply supervision and ground water protection) Shadeland Office, Indianapolis (317) 308-3308</p> <p>Permitting Branch (Facilities Construction & Engineering Support, Industrial & municipal permits, modeling, and wet weather) Indiana Government Center North, Indianapolis (317) 232-8760</p> <p>Watershed Planning Branch (Rules development, wetlands, TMDL, watershed management) Indiana Government Center North, Indianapolis (317) 233-8488</p>
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